**A title of the proposal: The policy of innovation: the role of a national system of innovation in developing countries**

 **Prepared by: Jihene Malek[[1]](#footnote-2)**

The practices of the policy of innovation in developing countries, despite their differences, have experienced a remarkable evolution to many directions in the globalization. The policy of innovation is actually needed to be adapted for the developing countries in the process of globalization leading to profound changes in the international environment. Many justifications are offered by many economists what work to explain: which determinants (actions) can improve the efficiency of the policy of innovation in African countries? In the same time, if the national system of innovation can play a major role to the promotion of growth in developing countries? And if institution combined to the role of social capital and the cultural specificities can play a role in building and development of new version of policy of innovation that can promote growth? And what about the climate of innovation in developing countries to promote competitiveness?

For this reason, this project is an opportunity to analysis the new approach of the policy of innovation. In fact, this project analysis the evolution of the concept of the policy of innovation for developing countries. Then it comes to proposing a large kind of practices with theoretical foundations.

Firstly, the policy of innovation is can justify by the theories of endogenous growth and conditional catching-up. Thus, many theories have emerged as those of conditional convergence and suggested arguments directly related to the policy of innovation in a context of catching up with the model **Verspagen (1993)[[2]](#footnote-3)** which combined catch and evolutionary theory. Latter has obviously the weight of the accumulation of learning and training education and human capital building, and investment in infrastructure projects as a basis for initiating a process of technological upgrading. He also recognized for its work on the role of improving the efficiency of structures and public institutions in increasing the ability to assimilate the «spillovers« of knowledge of emerging countries. Thus, this model has found a new justification for the intervention of the State which includes the field the policy of innovation through transfer strategies using several means including: the establishment of an efficient system of education and specialized in scientific and technological disciplines, applying a learning and training human capital program, the application of sanitation and operation of structures and institutions within the state strategy. Subsequently, in the same chain of thought another model, that of **Abramowitz[[3]](#footnote-4)**, was used to analyze the role of social skills in catching and convergence of developed countries. Through his work, he showed the weight of the essential conditions of this social ability and he even went further by emphasizing the role of national innovation systems whose efficiency affects policies of innovation to support the accumulation social capacity of a developing country. Therefore, policy of innovation has become a policy aimed at catching up with other countries in applying strategies on: expenditure in training, grants for research and development, infrastructure spending, etc.

Secondly, the policy of innovation can be analyzed by the theories of innovation developed by **Nelson and winter (1982)[[4]](#footnote-5).** Many work and articles are written about the national innovation in the late 1980s systems with **Freeman (1988)[[5]](#footnote-6), Lundvall (1988)[[6]](#footnote-7), and Nelson (1988)[[7]](#footnote-8).** Indeed, several studies have been devoted to the policy of innovation and were more oriented towards the promotion of technology in an evolutionary perspective to the work of: **Carlsson (1992), Metcalfe (1994), De Bandt (1995), Niosi and Bellon (1995) Saviotti (1995), and Lesourne al. (2002), Moreau (2004).** At the same time, several studies have focused particularly on national innovation systems in developing countries such as Korea, Taiwan, and Singapore. They have applied aggressive and intensive policies technological learning and they managed to catch up with developed according to the arguments proposed by **Kim (1993)[[8]](#footnote-9)** for example countries. According to some authors, national innovation systems in developing countries are still at a primitive stage. For example, **Mihoub Mezouaghi (2002)[[9]](#footnote-10)** argued that the concept of national innovation system has borrowed its physical and functional characteristics of innovation developed countries while its application in developing countries identified a number of system limits. According to him, the national innovation system is physically taken its sphere of research, even if the structures of scientific and technological research do not fall within this institutional framework and are not clearly defined and appropriate enough to be encouraged. In fact, the low activity of researchers demonstrated. He also suggested other limits namely the insufficient scientific opportunities, weak opportunities of industrial application, the absence of a system of protection of intellectual property rights, the inability of science policies to reduce rural exodus abroad and the collapse of the national scientific community. All these factors limit the development of a national innovation system in the case of developing countries. It also advances another argument for him hampers the development of a national innovation system is that its spheres are poorly integrated with each other. In fact, he argues that there is a mismatch between the sphere of research and industrial sphere causing isolation of the research system whose activity is dominated by basic research to the detriment of the remaining research. Therefore, the national innovation system is dependent on its connections with the internal system of human resource training and national industrial sphere and also its relations with industrialized countries or the same level of development.

Among those who joined the national innovation system to the effectiveness of the policy of innovation is **Porter** through the analysis of the competitive advantage of nations. The latter is conditioned by means of influences exerted on national attributes that enhance the country's competitiveness. Based on appropriate national innovation system, it is in the context of industrial policy to promote an environment of competitiveness of firms. Indeed, **Porter (1993)[[10]](#footnote-11)** proposed a series of basic conditions that affect the performance of the economy in general and businesses in particular. Through this approach, a series of new measures found their justifications. Such measures are under the influence of the state on the determinants of the Porter Diamond. The determinants of national competitive advantage represent measures of efficiency practices of the measures of the policy of innovation. They will be subject to empirical validation and the foundation of the overall composite indicator. Indeed, Porter identified four national attributes interact to create the best possible environment that are: factors, demand, and related upstream industries and strategy, structure and rivalry of firms. The relationship between them is the “diamond” Porter affected by the public authority. The latter action on the determinants of which justifies the new measures in favor of the business environment and promoting its competitiveness in the current context of globalization. At this level of analysis, once we have identified measures of the policies of innovation that represent the purpose of the theoretical foundations are oriented analyses to quantify the effects of the policy of innovation measures identified.

Finally, it is important to analyses the quantitative and the qualitative analysis of the policy of innovation in developing countries and their relation with growth. Thus, many empirical tools can used to test the impact of the policy of innovation on growth and to understand how state can improve their competitiveness by the policy of innovation.

Globally , this project of writing working paper can be a very good opportunities for me as a researcher to analysis the importance of the policy of innovation in developing countries and to contribute to all the research did actually in the same field .

1. **Jihène Malek** is a doctorate in economics and graduated from the Faculty of Economics and Management of Tunis (Tunisia) sciences. e-mail: malekjihenne@gmail.com [↑](#footnote-ref-2)
2. **Verspagen B. (1993): «**Uneven growth between interdependent economies», Edition Avebury, Aldershot. [↑](#footnote-ref-3)
3. **Abramowitz M. (1986): «**Catching Up, Forging Ahead, and Falling Behind », the Journal of Economic History, Vol. 46, No. 2, p 385-406. [↑](#footnote-ref-4)
4. **Nelson et Winter (1982) :**« An evolutionary theory of economic change », the Berllknap Press of Harvard University [↑](#footnote-ref-5)
5. **Moreau. F. (2004):** « The role of the state in an evolutionary microeconomics », Cambridge Journal of Economics. [↑](#footnote-ref-6)
6. **Lundvall (1992):**« National systems of innovation: towards a theory of innovation and interactive learning », Londres, printer**.** [↑](#footnote-ref-7)
7. **Nelson (1993):**« National innovation systems: a comparative analysis », New York University Press. [↑](#footnote-ref-8)
8. **Kim (1993):**« National systems of industrial innovation: dynamics of capability building in Korea », in R.Nelson **«** national innovation systems », New York. [↑](#footnote-ref-9)
9. **Mezouaghi.M (2002)** : « Les approches du système national d’innovation : les économies semi-industrialisées », Revue Tiers Monde, n169, p 189-212. [↑](#footnote-ref-10)
10. **Porter. M (1993) :** « L’avantage concurrentiel des nations », Inter Editions Paris, p 302-310. [↑](#footnote-ref-11)